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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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James B. Popp

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
1300 I STREET, NW
WASHINGTON, DC 20005

EXAMINER

LEE, BENJAMIN C

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,228

Applicant(s)POPP ET AL. **Examiner**

Benjamin C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 41-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41, 42 and 59 is/are allowed.
- 6) ☒ Claim(s) 1-26, 43-58 and 60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Priority Status

1. In response to Applicant's request, Applicant's claim for domestic priority to US provisional application 60/198,319 filed 4/19/00 is hereby acknowledged. It is noted that current, updated PTOL-326 no longer provides status for domestic priority claim status.

Claim Status

2. Claims 1-26 and 41-60 are pending.

Claim Rejections - 35 USC § 103

3. Claims 1-8 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. (US pat. #3,713,491) in view of Granek (US pat. #4,058,167) and Wootton (US pat. #3,848,231).

1) In considering claim 1:

Grabowski et al. teaches a system for detecting and suppressing a fire condition in a storage unit for storing freight in a storage area comprising plurality of storage units (e.g. cargo/freight stored in railroad cars, ship or aircraft, according to col. 1, lines 14-27 so that individual cars constitute storage units that are together constitute a storage area as a whole since they are connected), comprising: plural means each for detection of the fire condition (32) at the localized location of each device; plural fire suppression devices (29) each configured to discharge a fire suppressant material into the storage unit experiencing the fire condition, and also an embodiment having a remote alarm (14) using wired-connection of multiple devices (Fig. 1), whereby the fire detection and suppression are stand-alone units that can be interlinked for remote alarm monitoring and generation (see Figs. 1-2).

Granek teaches that a storage area can include a plurality of storage compartments/units and that a system of fire detectors and suppressant dischargers can be configured such that detection of the fire condition in any one of the storage units does not necessarily result in discharging of fire suppressant material into others of a plurality of storage units, and also teaches use of transmitter-receiver in alarm indication (Figs. 1 & 5).

Wootton teaches the desirability to provide a wireless remote indication of a detected fire condition for situational awareness by personnel for appropriate action, using a transmitter (16) associated with the fire sensor at the detection site (Fig. 1) and configured to transmit a first signal upon detection of the fire condition, at least one receiver (Fig. 4) configured to detect the first signal and configured to provide a second signal indicating detection of the fire condition (235) and showing the identity of the monitoring station that has detected fire (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to activate only the suppressant dischargers in a system such as taught by Grabowski et al. located in a storage unit that experiences a fire condition when the interconnected devices are placed in separate storage units constituting individual monitoring zones such as taught by Granek when the system is applied to a storage area environment having multiple storage units, since cargo cars, ship and aircraft sometimes comprise multiple storage units, in order to prevent unnecessary use of fire suppressant.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to use a known wireless remote alarm as taught by Wootton using wireless transmitter and receiver and station identity indication in a fire detecting and suppressing system such as taught by Grabowski and Granek to provide convenience of interlinks without the

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physical entanglement of wires and that shows which station/location has detected fire so that appropriate response, such as personal inspection or summoning additional aid from the fire department, can be provided by personnel in an improved manner due to knowledge of the specific station/location of the fire.

2) In considering claims 2-8, Grabowski et al., Granek and Wootton made obvious all of the claimed subject matter as in amended claim 1, plus the consideration of claims 2-8 in the previous Office action.

3) In considering claim 60, Grabowski et al., Granek and Wootton made obvious all of the claimed subject matter as in the consideration of amended claim 1.

4. Claims 18-25, 43-49 and 52-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Wootton.

1) In considering amended claims 18-19, Grabowski et al. and Wootton made obvious all of the claimed subject matter as stand in the previous Office action, plus the consideration of claim 8 of the previous Office action.

2) In considering claims 20-25, Grabowski et al. and Wootton made obvious all of the claimed subject matter as in amended claim 18, plus the consideration of claims 20-25 as stand in the previous Office action.

3) In considering claim 43-44, Grabowski et al. and Wootton made obvious all of the claimed subject matter as stand in the previous Office action.

4) In considering claim 45, Grabowski et al. and Wootton made obvious all of the claimed subject matter as in claim 44, whereby:

--Since storage units and associated receivers have predetermined positions after initial placement in Grabowski et al. and Wootton, each of the storage units is located at a predetermined position relative to the individual receiver associated with the storage unit.

5) In considering claims 46-49 and 52-57, Grabowski et al. and Wootton made obvious all of the claimed subject matter as stand in the previous Office action.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Granek et al., Wootton and Eguchi (US pat. #3,909,814).

1) In considering claim 9, Grabowski et al., Granek et al., Wootton and Eguchi made obvious all of the claimed subject matter as in amended claim 1, plus the consideration of claim 9 in the previous Office action.

6. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Wootton and Eguchi.

2) In considering claim 50, Grabowski et al., Wootton and Eguchi made obvious all of the claimed subject matter as stand in the previous Office action.

7. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Granek et al., Wootton, Eguchi and Fierbaugh (US pat. #4,987,958).

1) In considering claims 10-13, Grabowski et al., Granek et al. and Wootton, made obvious all of the claimed subject matter as in amended claim 1, plus the consideration of claims 10-13 further in view of Eguchi and Fierbaugh as stand in the previous Office action.

8. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Granek et al., Wootton and Sears (US pat. #6,032,745).

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1) In considering amended claims 14-17, Grabowski et al., Granek et al. and Wootton made obvious all of the claimed subject matter as in amended claim 1, plus the consideration of claims 14-17 further in view of Sears as stand in the previous Office action.

9. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Wootton and Sears as stand in the previous Office action.

10. Claims 26 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabowski et al. in view of Wootton and Granek.

1) In considering claim 26, Grabowski et al., Wootton and Granek made obvious all of the claimed subject matter as in amended claim 18, plus the consideration of claim 26 as stand in the previous Office action.

2) In considering claim 58, Grabowski et al. and Wootton made obvious all of the claimed subject matter as in claim 57, plus the consideration of claim 26 in view of Granek.

Allowable Subject Matter

11. Claims 41-42 and 59 are allowed.

Response to Arguments

12. Applicant's arguments filed 7/29/04 have been fully considered but they are not persuasive.

1) Amended claims 41-42 and 59 have been allowed.

2) Amended claim 1 has been rejected under new grounds by inclusion of the Granek et al. reference for meeting the argued claim limitation. New claim 60 is similarly rejected. See above rejection for detail.

3) Regarding the infrared transmitted signal for remote alarm in amended claims 18, 43 and 52, as indicated by applicant's remarks, "...the knowledge generally available to one of ordinary skill in the art" can be used "to modify the reference or to combine reference teachings." The wired connection between the suppressor units in Grabowski et al. allows for sympathetic actuation when the units are placed in the same storage area not disclosed to be comprises of separate storage units, and Grabowski et al. does not prevent the remote alarm indication signal to be separated from this sympathetic actuation signals. Furthermore, nothing in Grabowski et al. prevents the sympathetic actuation control signals to be implemented wirelessly either. Applicant's hypothetical line-of-sight limitations associated with infrared signals, again, depends on the application environment as indicated in the previous Office action rejection of claim 8 so that infrared signals may advantageous be used if there is line of sight and there is radio interference, for example. As for the wired leads recharges the batteries, the mere use of batteries in Grabowski et al. allows for individual and stand-alone usage without the need for recharge at least some of the time. The use of transmission time intervals of Wootton to convey station location identification is applicable to infrared signals as well as radio frequency signals.

4) Rejection of claims 9-17 and 50-51 are maintained for reasons provided above.

5) In conclusion, Applicant's arguments are not deemed persuasive, and the above rejection is maintained.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (571) 272-2963. The examiner can normally be reached on Mon -Fri 11:00Am-7:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Benjamin C. Lee
Primary Examiner
Art Unit 2632

B.L.